

FIG. 1A (PRIOR ART)

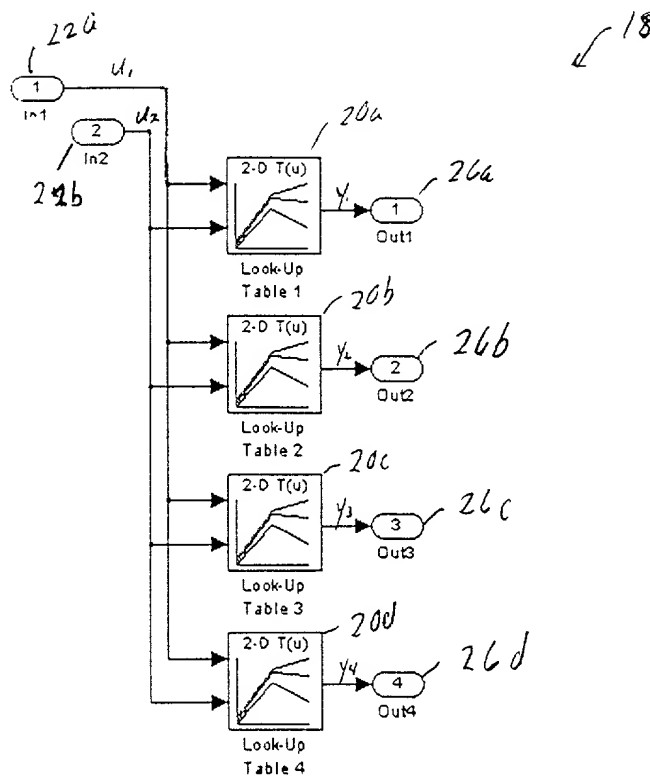


FIG. 1B (PRIOR ART)

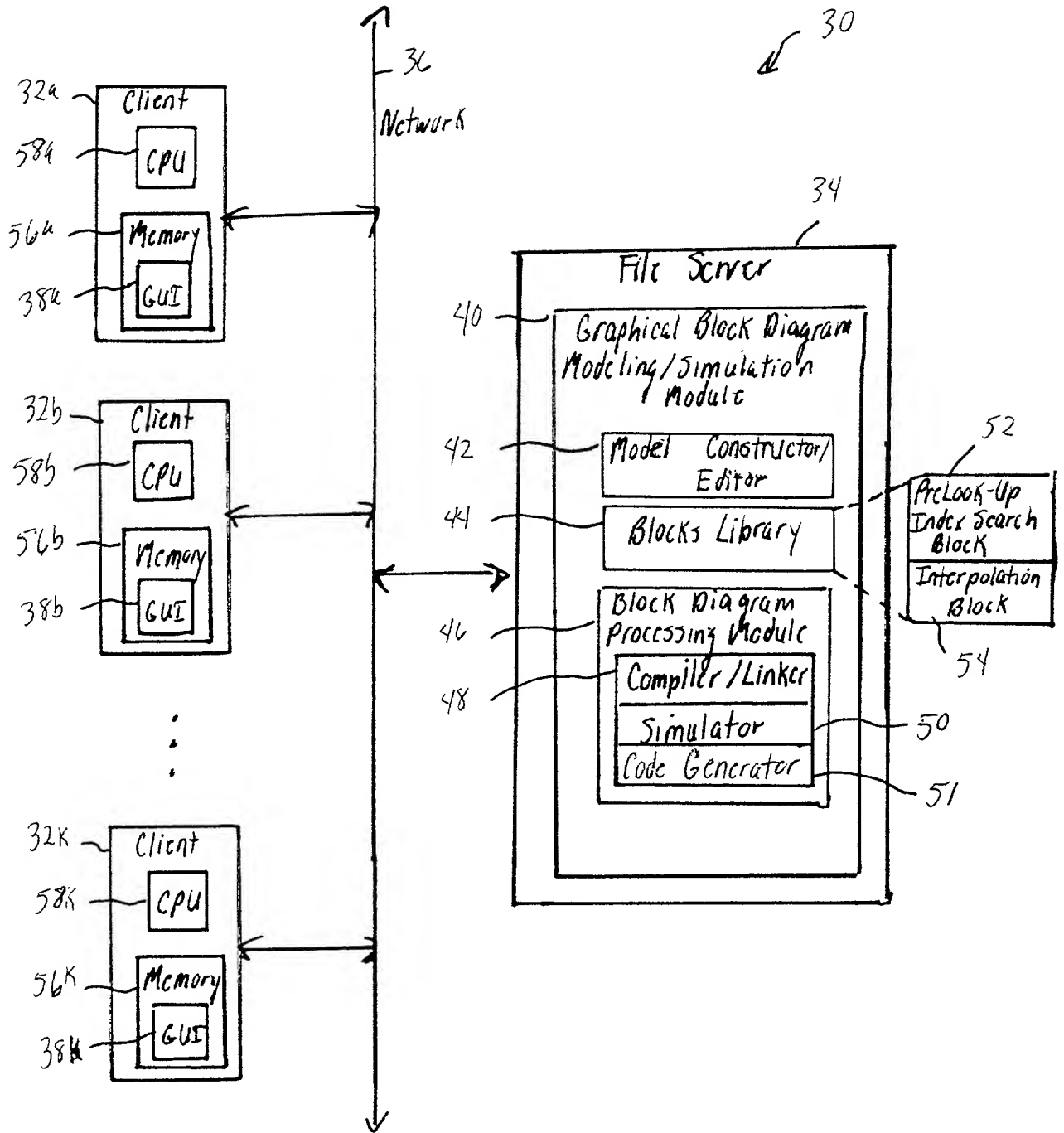


FIG. 2

48

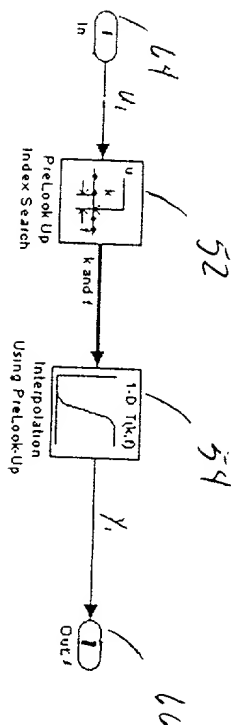


FIG. 3A

70

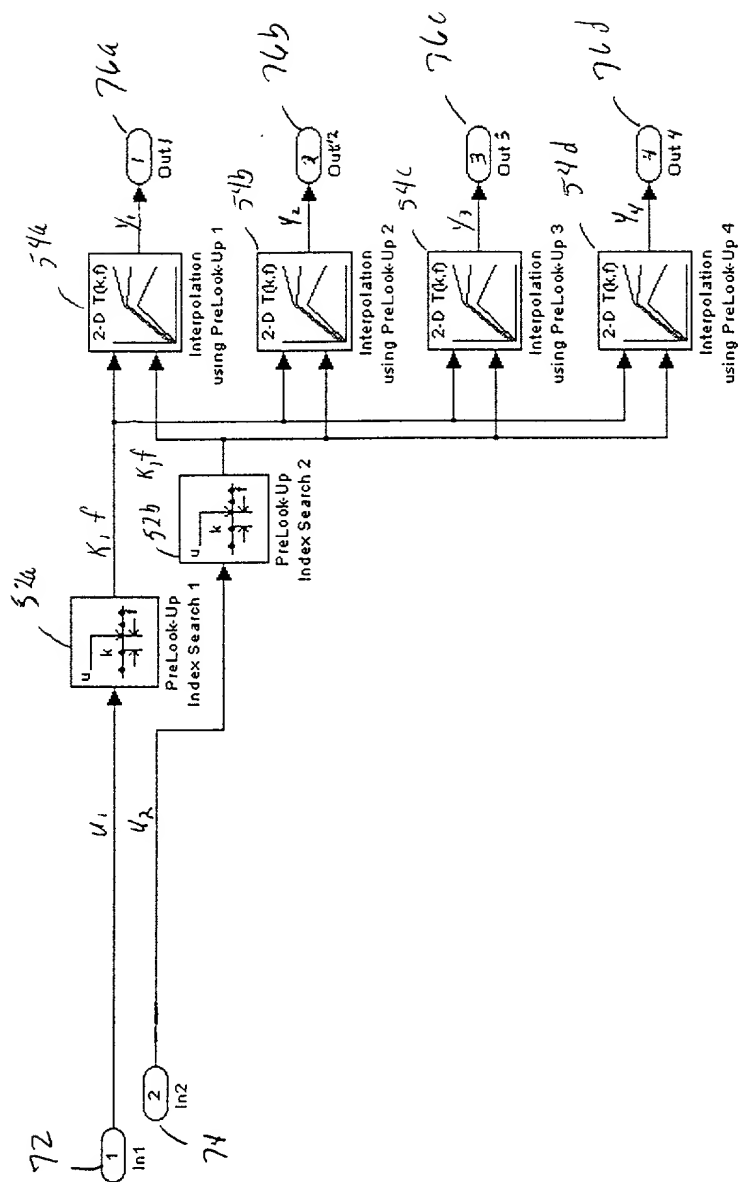


FIG. 30

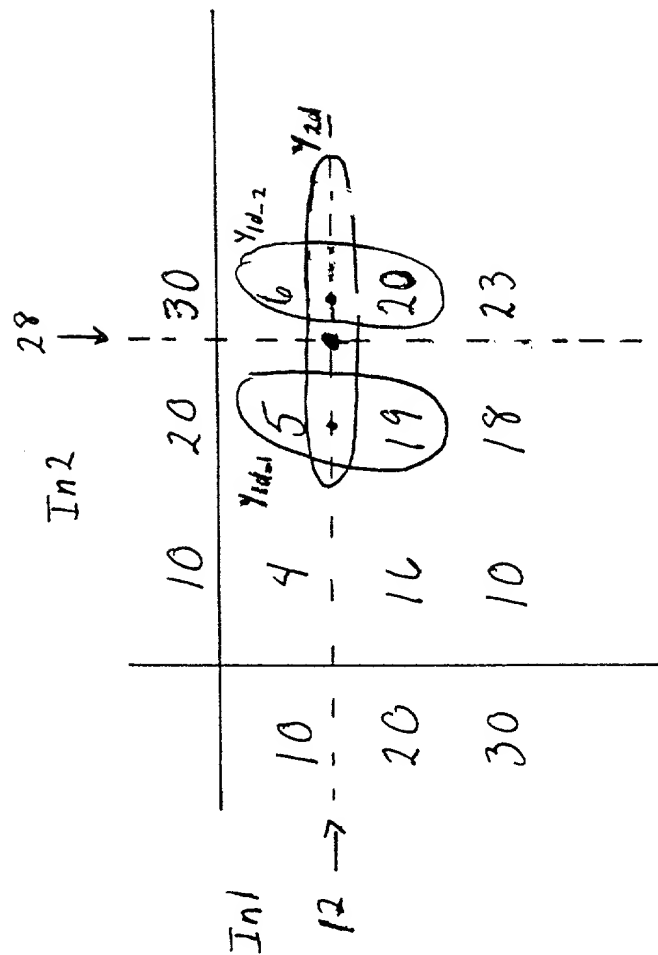


FIG. 4

000009931.072001

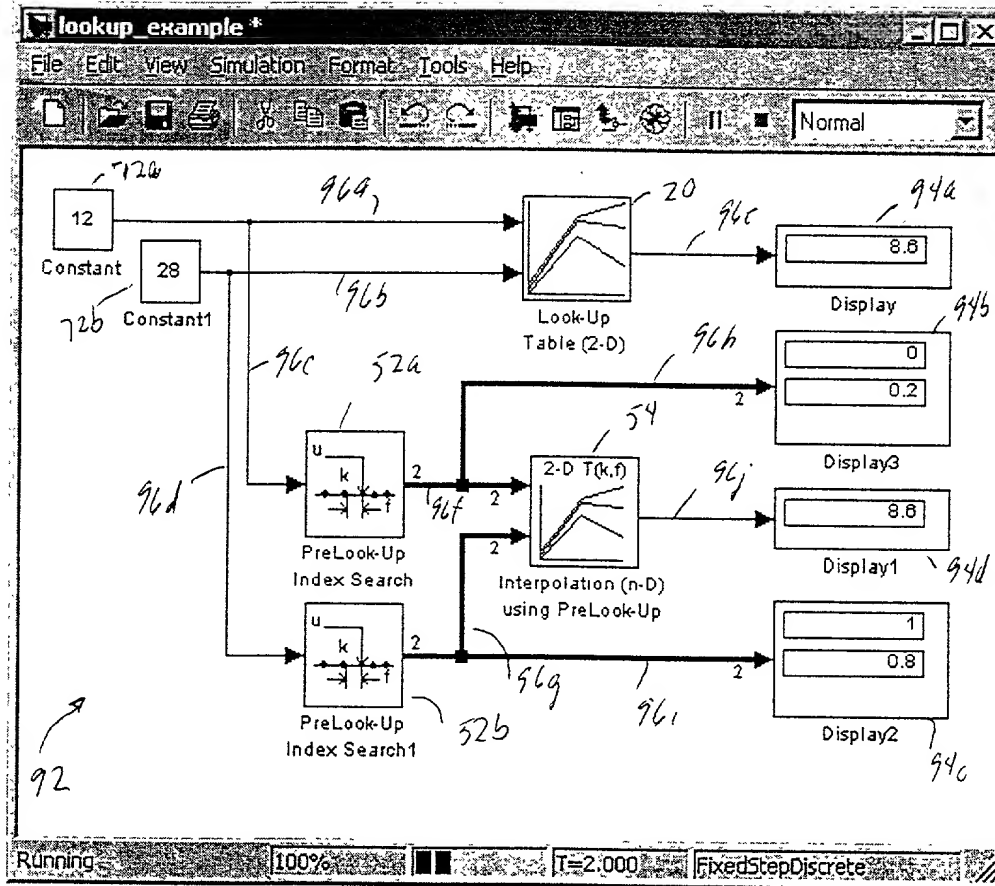


FIG. 5

09909931-072004

**Block Parameters: Look-Up Table (2-D)** [X]

Lookup Table (2-D) (mask) (link)

Performs 2-D linear interpolation of input values using the specified input/output table. Extrapolation is performed outside the table boundaries. The first dimension corresponds to the top (or left) input port.

Parameters

Row: [10,20,30] 102

Column: [10,20,30] 104

Table: [4 5 6,16 19 20;10 18 23] 106

OK Cancel Help Apply

FIG. 6

**Block Parameters: PreLook-Up Index Search** [X]

LookupIdxSearch (mask) (link)

Locate the input value's relative position within a range of numbers (the "breakpoint data" set). Returns an array of the interval index "k" and distance fraction "f" that the input "u" reaches into the kth interval.

Parameters

Breakpoint data:

Index search method:

☐ Begin index search using previous index result

☐ Output only the index

Process out of range input:

Action for out of range input:

OK Cancel Help Apply

110a

112

114

FIG. 7A

115

**Block Parameters: PreLook-Up Index Search1** [X]

LookupIdxSearch (mask) (link)

Locate the input value's relative position within a range of numbers (the "breakpoint data" set). Returns an array of the interval index "k" and distance fraction "f" that the input "u" reaches into the kth interval.

Parameters

Breakpoint data:

Index search method:

☐ Begin index search using previous index result

☐ Output only the index

Process out of range input:

Action for out of range input:

OK Cancel Help Apply

110b

112

114

FIG. 7B

115



**Block Parameters: Interpolation (n-D) using PreLook-Up**

LookupNDInterplx(mask) (link)

Perform n-dimensional (n-D) interpolated table lookup using precalculated indices and distance fractions. An n-D Table is a sampled representation of a function in N variables. This block is fed with the output of a PreLook-Up Index Search block. The first dimension corresponds to the top (or left) input port.

Parameters

Number of table dimensions:

Table data:

Interpolation method:

Extrapolation method:

Action for out of range input:

OK Cancel Help Apply

116

118

FIG. 8

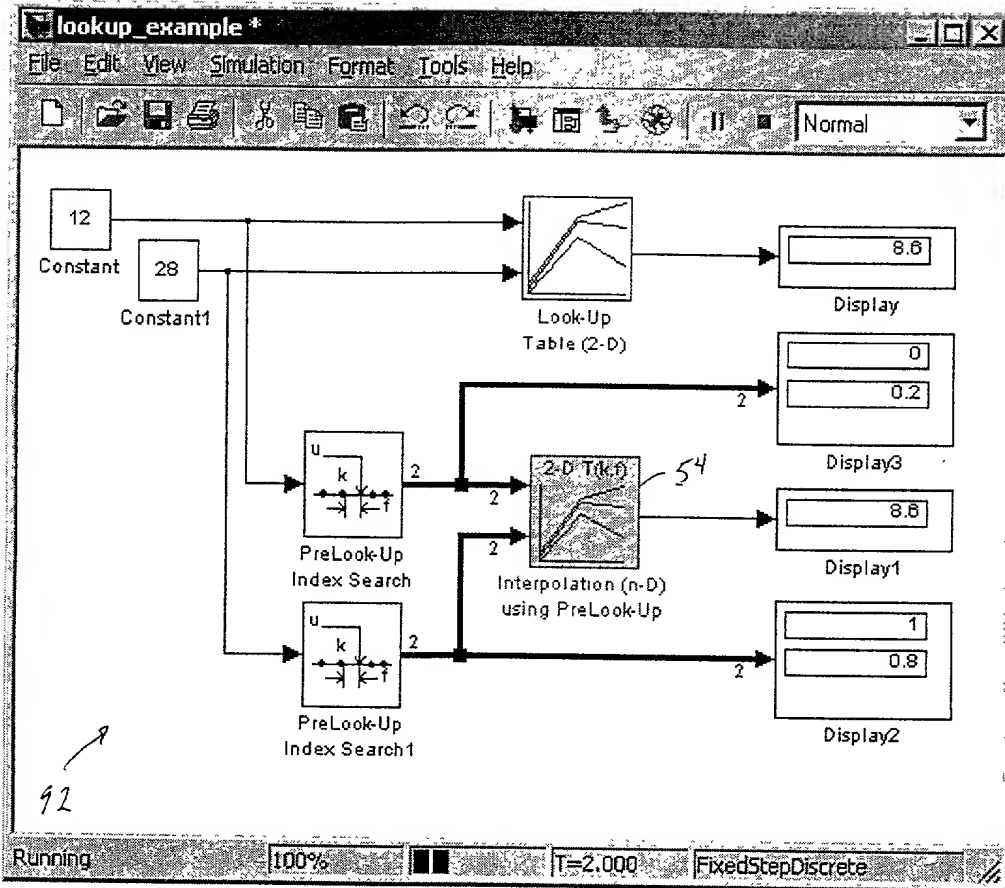


FIG. 9

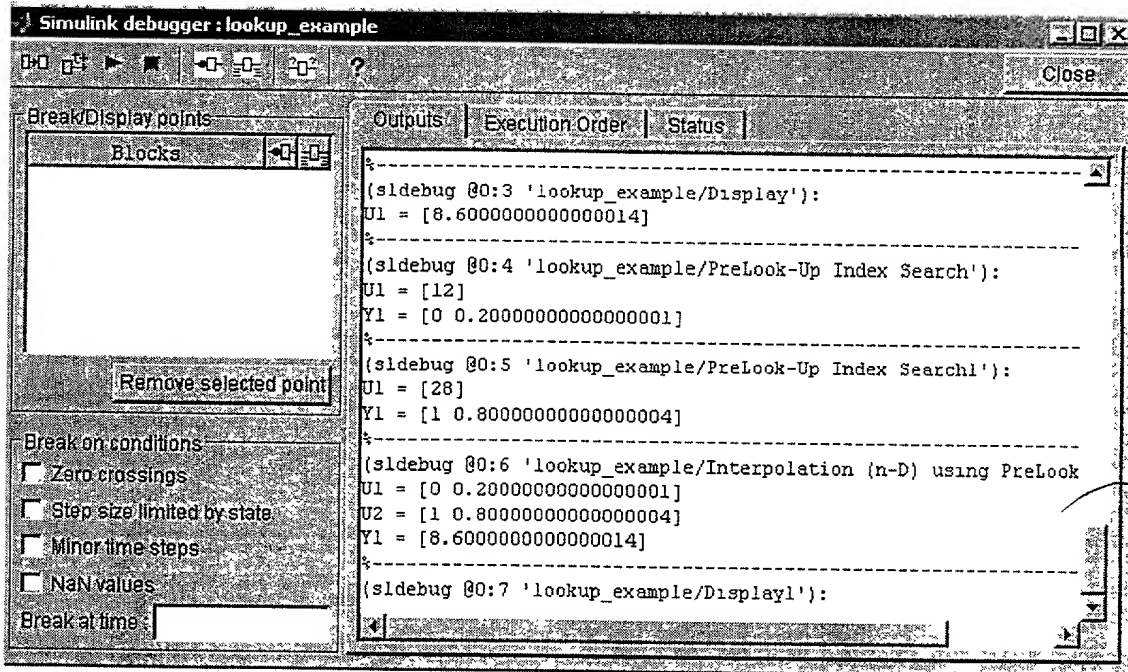


FIG. 10

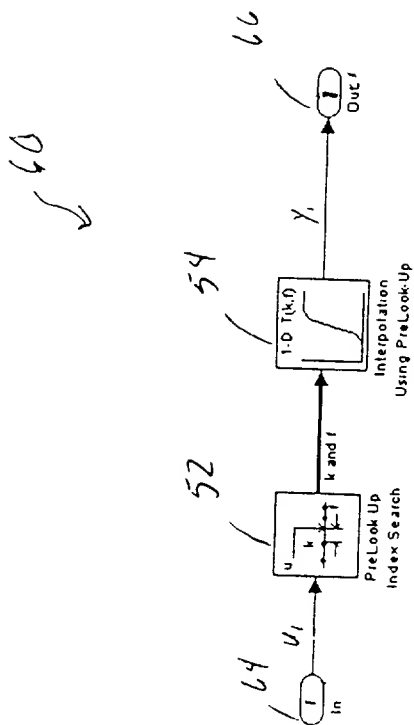


FIG. 3A